IP Link® Device Interface
Ethernet Communication Sheet

This document provides additional assistance with wiring your Extron IP Link enabled product to your device. Different components may require a different wiring scheme than those listed below.

For complete operating instructions, refer to the user's manual for the specific Extron IP Link enabled product or the controlled device manufacturer supplied documentation.

Device Specifications:

Device Type: Scaler
Manufacturer: Extron
Firmware Version: 2.18
Model(s): IN1606

Minimum Software and Firmware Requirements:

IP Link Compiler	IP Link Firmware	GC Version
1.6.0	1.17	3.5.2

Version History:

Driver Version	Date	Notes
16	3/13/2015	Extron Certified. Added 1080i (50Hz) Output Resolution. Tested on IN1606.
15	2/9/2015	Extron Certified. Added Auto Switch mode functionality. Tested on IN1606.
14	12/10/2014	Extron Certified. Added timer functionality. Tested on IN1608.
13	12/09/2013	Extron Certified. Added HDCP Status commands for Inputs and Outputs. Tested on IN1606.
12	11/22/2013	Extron Certified. Added HDMI A-B Output format commands. Tested on IN1606.
9	9/11/2013	Extron Certified. Renamed group commands based on embedded webpage. Added Output 1-2 Volume (Discrete), Output 1 - 2 Mute, Mic 1-2 (Discrete), Mic/Line 1-2 (Discrete), Mic 1-2 Mute.
8	7/15/2013	Extron Certified. Fixed password authentication issue.
7	7/02/2013	Extron Certified. Changed the "Port Changeability" to "Yes"
6	5/23/2013	Extron Certified. Added Output Resolution and Switching Effect commands.

5	4/09/2013	Extron Certified. Fixed feedback issues. Added Screen Saver command. Tested on IN1606.
4	4/08/2013	Extron Certified. Fixed issues with Volume control. Tested on IN1606.
3	3/25/2013	Extron Certified. Tested on IN1606. Fixed Volume & Gain status.
2	3/14/2013	Initial version. Extron Certified. Tested on IN1606.

Driver Notes:

- This driver contains Volume Optimization.
- Input Format command will not display status if the input selected does not have an active signal.
- Input Format and Aspect Ratio command require bidirectional communication to work properly

Control Commands & States:

Aspect Ratio	Fill Screen	Follow Input	
Audio Input	1-6		
Audio Input 1-6*	Analog	Digital 1	Digital 2
	Digital 3	Digital 4	Off
Audio/Video Input	1-6		
Auto Image	Mode 1[1]	Mode 2[2]	Mode 3[3]
Auto Input Switching Priority	Disabled, manual switching	Priority to highest active input	Priority to lowest active input
Executive Mode	Mode 1[4]	Mode 2[5]	Off
Freeze	On	Off	
HDMI A-B Output Format	HDMI YUV 444 "Limited"	Auto	DVI RGB 444
	HDMI RGB "Full"	HDMI RGB "Limited"	HDMI YUV 422 "Full"
	HDMI YUV 422 "Limited"	HDMI YUV 444 "Full"	HDMI YUV 444 "Limited"
Input 3-6 HDCP Authorization	Enable	Disable	
Input Format	RGB	YUV	RGBcvS
	S-Video	Composite	Digital
	Auto		
Input Preset Recall	1-128		
Input Preset Save	1-128		
Mic 1-2 Mute	On	Off	
Mic 1-2 Volume (Discrete)	-100 to 0 in steps of 1		
Mic/Line 1-2 Volume (Discrete)	-18 to 60 in steps of 1		
Mic Volume (Discrete)	-100 to 0 in steps of 1		
Mic Volume (Step)	Up	Down	
Mic Mute	On	Off	
Output 1-2 Mute	On	Off	

Output 1-2 Volume (Discrete)	-100 to 0 in steps of 1		
Output Mute	On	Off	
Output Volume (Discrete)	-100 to 0 in steps of 1		
Output Volume (Step)	On	Off	
Output Resolution	640x480 (60Hz)	800x600 (60Hz)	1024x768 (60Hz)
	1280x768 (60Hz)	1280x800 (60Hz)	1280x1024 (60Hz)
	1360x765 (60Hz)	1360x768 (60Hz)	1365x768 (60Hz)
	1366x768 (60Hz)	1440x900 (60Hz)	1400x1050 (60Hz)
	1600x900 (60Hz)	1680x1050 (60Hz)	1600x1200 (60Hz)
	1920x1200 (60Hz)	480p (60Hz)	720p (25Hz)
	720p (29.97Hz)	720p (30Hz)	720p (59.94Hz)
	720p (60Hz)	1080i (50Hz)	1080i (60Hz)
	1080p (23.98Hz)	1080p (24Hz)	1080p (25Hz)
	1080p (29.97Hz)	1080p (30Hz)	1080p (50Hz)
	1080p (59.94Hz)	1080p (60Hz)	
Program Volume (Discrete)	-100 to 0 in steps of 1		
Program Volume (Step)	Up	Down	
Program Mute	On	Off	
Power Save Mode	On	Off	
Switching Effect	Cut	Fade	
User Preset Recall	1-16		
User Preset Save	1-16		
Video Input	1-6		
Video Mute	Mode 1[6]	Mode 2[7]	Off
Timer	0	10 sec	30 sec
	1 to 120 min		

1. Auto Image Mode 1: Execute an auto image to the current input (follows current aspect setting)
2. Auto Image Mode 2: Execute an auto image and fill the entire output
3. Auto Image Mode 3: Execute an auto image and follow the input's aspect ratio
4. Executive Mode 1: Lock out entire front panel
5. Executive Mode 2: Limited front panel adjustments (input selection, PIP/SWAP, and Auto Image)

6. Video Mute Mode 1: Mutes video and displays black video (Global)
7. Video Mute Mode 2: Mutes video and sync on all outputs (Global)

*****Audio Input 1 and 2 only support “Analog” and “Off” states.

Status Available:

Aspect Ratio	Fill Screen	Follow Input	
Audio Input	1-6		
Audio Input 1-6*	Analog	Digital 1	Digital 2
	Digital 3	Digital 4	Off
Auto Input Switching Priority	Disabled, manual switching	Priority to highest active input	Priority to lowest active input
Connection Status	Connected	Disconnected	
Executive Mode	Mode 1	Mode 2	Off
Freeze	On	Off	
HDMI A-B Output Format	HDMI YUV 444 “Limited”	Auto	DVI RGB 444
	HDMI RGB “Full”	HDMI RGB “Limited”	HDMI YUV 422 “Full”
	HDMI YUV 422 “Limited”	HDMI YUV 444 “Full”	HDMI YUV 444 “Limited”
HDCP Input 3-6 Status	No source detected	Source detected with HDCP encryption	Source detected with no HDCP encryption
HDCP Output 1-2 Status	No source detected	Source detected with HDCP encryption	Source detected with no HDCP encryption
Input 1-6 Status	Signal Present	No Signal Present	Status Unavailable
Input 3-6 HDCP Authorization	Enable	Disable	
Input Format	RGB	YUV	RGBcvS
	S-Video	Composite	Digital
	Auto		
Mic 1-2 Mute	On	Off	
Mic 1-2 Volume (Discrete)	-100 to 0 in steps of 1		
Mic/Line 1-2 Volume (Discrete)	-18 to 60 in steps of 1		
Mic Volume (Discrete)	-100 to 0 in steps of 1		
Mic Volume (Step)	Up	Down	

Mic Mute	On	Off	
Output 1-2 Mute	On	Off	
Output 1-2 Volume (Discrete)	-100 to 0 in steps of 1		
Output Mute	On	Off	
Output Volume (Discrete)	-100 to 0 in steps of 1		
Output Volume (Step)	On	Off	
Output Resolution	640x480 (60Hz)	800x600 (60Hz)	1024x768 (60Hz)
	1280x768 (60Hz)	1280x800 (60Hz)	1280x1024 (60Hz)
	1360x765 (60Hz)	1360x768 (60Hz)	1365x768 (60Hz)
	1366x768 (60Hz)	1440x900 (60Hz)	1400x1050 (60Hz)
	1600x900 (60Hz)	1680x1050 (60Hz)	1600x1200 (60Hz)
	1920x1200 (60Hz)	480p (60Hz)	720p (25Hz)
	720p (29.97Hz)	720p (30Hz)	720p (59.94Hz)
	720p (60Hz)	1080i (50Hz)	1080i (60Hz)
	1080p (23.98Hz)	1080p (24Hz)	1080p (25Hz)
	1080p (29.97Hz)	1080p (30Hz)	1080p (50Hz)
	1080p (59.94Hz)	1080p (60Hz)	
Program Volume (Discrete)	-100 to 0 in steps of 1		
Program Mute	On	Off	
Power Save Mode	On	Off	
Switching Effect	Cut	Fade	
Screen Saver	Active input detected; timer not running	No active input; timer expired; output sync disabled	No active input; timer running; output sync still active
Signal Status	Active	Inactive	Status Unavailable
	Count Down		
Video Input	1-6		

Video Mute	Mode 1	Mode 2	Off
Timer Status	0 to 120 Minutes		

*Audio Input 1 and 2 only support “Analog” and “Off” states.

Network communication:

When configuring the Ethernet driver, be sure device settings match that of the GC configuration.

Port Type:	Ethernet
Logon Credentials Supported:	Yes
Default Port:	23
Multi-Connection Capable:	Yes
Port Changeable:	Yes

Ethernet Driver Configuration Description:

Please refer to user manual for settings and changes to the network communication parameters such as: User Name, Passwords.

Notes for the Device: